Response to DEIS from:

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General Comments:

1. When a "preferred option" is selected, does it include a "preferred option" for the surface?
2. If the answer to #1 is yes, how do we maintain flexibility for the urban designer? One way would be if a "preferred operation" were selected for the surface. It wouldn't dictate where the roads were vs. where open space was, only provide a criteria for the operations of the surface. This could illustrate how many lanes are needed, what the delivery criteria are for the piers, ferry loading criteria, etc., but let the urban designer help craft the surface to accommodate traffic and humans together. Thus the "Preferred Operation" becomes part of the program that the urban designer must respond to.
3. The urban designer shouldn't be hampered by decisions for "frontage roads, or even where the ferry traffic goes until they can assess the waterfront as a whole. Don't handcuff the urban design by dictating what happens on the surface.
4. Can the tunnel be positioned closer to the surface to minimize cost?

No Net Increase of Road Width:

Issues to Study:

1. Can the outside lanes become parking lanes during certain hours of the day to minimize road width?
2. Can dedicated turn lanes be eliminated?
3. Can bicycle lanes / frontage road be combined? I.e. there is no additional width for bicycle lanes.
4. Can there be a grand central boulevard wide enough to accommodate pedestrian uses (at least 75', 100' preferable), lawns, plazas, etc? Use Portland's Park Blocks as a model. This might mean minimizing the Promenade to 20-25'.
5. Can off-site Ferry Parking be eliminated with a multi-storied holding facility on the ferry terminal site?
6. Can off-site Ferry Parking be integrated with Private development?
7. Look into alternative "trolley" technologies as described below. I.E. rubber-tired trams that can climb greater slopes. This will allow more access to Belltown.

8. Develop other alternatives to the "frontage lanes" for delivery access.
    - Implement restricted hours for deliveries. For example, from 10:00 p.m. to 6:00 a.m.
    - Can the "Promenade" be used in restricted hours as a delivery lane, this would mean access to the sidewalk level via curb cuts, no dedicated lane.
    - Can the frontage road be limited to every other or every third street, instead of along the entire waterfront?
    - Why can't curb cuts allow trucks to back in for deliveries during restricted hours?
    - Is there a maximum distance for deliveries / drop off points dictated by city or state code? If not, why are we providing special access for these businesses when it will be severely detrimental to the waterfront, and takes up so much land.
    - In some schemes a frontage road is shown adjacent to a proposed green space by Pioneer Sq., is this necessary when there is no need for deliveries. Can we return this land to open space?
9. General Comment. Please provide cross-sectional representations for the north, middle and south waterfront in the downtown area for each option and variant. The generic sections do not help one to see the various options.
10. Does a viaduct structure need to be replaced, or can capacity be delivered at the same price by improving other routes and modes of travel? For example, can improved, direct connections be made to 1st, 4th, Airport Way and I-5 from the West Seattle Bridge? Can access from the north be made through improved, direct connections to 6th and 7th avenues, and perhaps through the tunnel to Belltown? Can new water, and rail based modes of transit decrease the need for the viaduct structure?

Comments:

The width, and number of lanes on the Alaskan Way surface street should not increase over what is there presently today. Four Lanes plus a shared turn lane is more than adequate for the majority of the waterfront.

Alaskan Way Street Alignment:
Three options for the cross section of the waterfront should be studied or accommodated. These may come in combinations of 2 or all 3 if the final urban design calls for it. All assume the trolley is on Western Avenue, which would be preferable, although none are precluded with the trolley on Alaskan Way. If the trolley is on Alaskan Way it should run in traffic to preserve land for other uses.

1. **Western street alignment:** Move Alaskan Way tight against the western edge of the waterfront promenade. Allow for approx. 30' of promenade. Provide 2 lanes of traffic in each direction, the outer lane for parking in off-peak hours, a center turn lane only where

applicable (not a boulevard median). This will allow 30-90' along the eastern edge of the waterfront for a prominent sidewalk, open space plazas, or limited development.

2. **Eastern Street Alignment:** Move Alaskan Way tight against the eastern edge of the urban fabric. Allow for approx. 20' of promenade. Provide 2 lanes of traffic in each direction, the outer lane for parking in off-peak hours, a center turn lane only where applicable (not a boulevard median). This will allow 40-100' along the waterfront for a prominent sidewalk, open space plazas, or limited development.
3. **Split Alignment (Grand Boulevard):** Provide at least 75' for a center boulevard of open space plazas, lawns and limited development. Split the roadway of 2 lanes in each direction with the outer lane dedicated to parking in non-peak hours. This will allow for a prominent sidewalk on either side of Alaskan Way.

Ferry Loading:

It is important that the ferry terminal fit in with the character of the waterfront, and that the loading / unloading / queuing mechanisms have minimal impact on the pedestrian. These factors will greatly impact the pedestrian friendliness of the waterfront

1. Location of parking queue:
   - The Surface (and surface variant 1), Rebuild, Bypass, and Tunnel Alternatives show a parking queue that is placed partially on terminal 46 (west of Alaskan way). Also provided is a dedicated roadway for ferry traffic. This creates an extra layer of travel lanes between the water and Pioneer Sq., making the limited amount of open space left undesirable. Ferry traffic should use the lanes provided on Alaskan Way, maximizing open space for other uses or development.
   - The Aerial Alternative, Bypass (Variant 1, 2, 3), Tunnel (Variant 1, 2, 3, 4) shows queuing to the east of Alaskan Way. Queues will then travel north on Alaskan Way to the terminal. This frees the land near the water for park space or pedestrian oriented development. This option should be encouraged.

2. Alternatives to reduce footprint/ Impact: Alternatives should be explored to reduce the impact of the ferry traffic and terminal on the waterfront. The structure should be integrated in a pedestrian friendly way.

Eliminate Dedicated Taxi / Bus "Frontage Road":

Why do Taxis, Buses and Delivery trucks need their own lane? There seems to be a need by WSDOT to fill up all the space on the surface with traffic instead of people oriented activities. Taxis and Buses can use GP lanes with special marked load/unload areas like those downtown and at local hotels, and delivery trucks can deliver at certain times of day. Return this land to pedestrian use.

1. Wasted Space: This lane is wasteful of the limited space we have to create pedestrian activities along the waterfront. The limited use nature of this lane does not warrant its existence.

2. Creative Solutions: The sidewalk at the piers should be structured to take delivery trucks, who can use it at limited hours of the day. Other cities dictate special delivery times, so can we.

Parking:

While parking is an issue, it should not overwhelm the waterfront. Structured parking should not be placed at the edge of the urban fabric next to the waterfront, but held 1 block off. All structured parking should be placed within multiple use buldings, including retail, commercial and/or housing. Parking should be placed in underground facilities if possible. A revised trolley line along Western will allow people to park in Belltown and take the trolley to the waterfront.

The Seattle Waterfront Trolley:

The DEIS refers to a "historic character" that the trolley contributes to on the waterfront, which is more nostalgic rhetoric than reality. The Seattle Waterfront Trolley should become a part of the greater Seattle Transportation system, more than just a tourist ride as it is primarily today. In order to do this, the trolley must be integrated with the urban fabric of the city, engaged with the citizens of Seattle and serving their needs. Thus the Western Avenue route is the best choice.

The Western Ave. alignment allows the trolley to easily access…

- The heart of Pioneer Square
- The emerging shopping and office corridor between Pioneer Sq. and the Market.
- Harbor Steps and the Cultural Corridor along University St.
- The Pike Place Market (the #1 tourist attraction in the state of Washington)
- Victor Steinbruek Park
- The emerging residential corridor from the Market to the Olympic Sculpture Park
- The Olympic Sculpture Park
- Via Broad to the Seattle Center

Unfortunately, the Western Avenue alignment shows the trolley turning east on Blanchard, I'm assuming to meet up with the proposed S. Lake Union streetcar at Westlake. This connection makes sense, however it would make more sense if the trolley were planned to run along Western to the Olympic Sculpture Park. This would allow the trolley to serve the thousands of units of housing surrounding this future tourist destination. Continuing through Belltown to Broad, turning east to the Seattle Center the trolley could then serve S. Lake Union via a re-connected Thomas St. If Broad is too steep, the trolley should cross Denny to Lower Queen Anne and use Mercer to connect with South Lake Union.

The major impediment to E-W trolleys in Seattle is the grade of the streets. Light Rail trolleys generally run at 5% or less. This is why new technologies might be appropriate. The GRT tram

produced by Bombardier looks like light rail, and provides low-floor boarding, but is more flexible. The following is text from the Bombardier website (http://www.bombardier.com).

Operating on an exclusive right of way, as well as in mixed traffic, the GLT offers a cost-efficient solution that can help shape cities while stimulating ridership, new investment, and commercial development.

The rubber-tired GLT, featuring automatic guidance via a single rail imbedded in the roadway, requires less infrastructure than traditional trams, and can be easily maintained at bus maintenance depots.

Capable of operating on street gradients up to 13%, and negotiating 39-foot (12-m) radius curves during normal operation, GLT trams offer exceptional urban maneuverability, while respecting environmental and community noise standards.

The stylish, double-articulated vehicles meet high comfort standards for passengers with 100 per cent low-floors and air-conditioned interiors. Wide panoramic windows allow unobstructed views of the city landscape.

Tram-on-Tires – Nancy, France

In 1998, the Greater Nancy Urban Community (CUGN) of France ordered 25 Tram-on-Tires units from Bombardier Transportation, with the objective of equipping its segregated-lane transit system. The Tram-on-Tires' main benefit is its rail and road bi-modality: it can be operated on a segregated electrified lane with a single central guiding rail, or operated as a road vehicle on tires, driven independently and powered by a diesel-electric system. The Greater Nancy urban area will accommodate the new Tram-on-Tires units on its existing trolleybus network. High comfort standards for passengers are met with 100% low-floor and air-conditioned accommodations, along with wide panoramic windows that allow unobstructed viewing of the city landscape. These units offer exceptional urban maneuverability, with the capacity for 12-metre radius curves and 13% gradients during normal operation. Tram-on-Tires is brightening the City of Nancy with its innovative, modern and environmentally-friendly features.

I have personally ridden this same system in Caen, France and can attest to its comfort and compatibility in the urban environment.

A Place for Parks:

Issues to Study:

1. What are the options for the location / size of the emergency ventilations systems / egress structures? How can they be better integrated into park space or development? Can they be located in the unused medians to preserve space, and flexibility for open space and development?

2. Can park edges, or bio-swale medians also provide an ecological way to treat street run-off?
3. Can we maximize space for parks (i.e. minimize road width) along the central waterfront by routing traffic to 1st and 4th avenues south of the Stadiums?

Comments:

The surface and aerial options offer little to no possibility for new open space on the waterfront, and the higher noise levels created by these alternatives will decrease the enjoyment of the waterfront for our citizens. The increased footprint of the new aerial alternative will actually decrease the amount of open space along the waterfront, and encroach further upon the remaining open space with shadow and noise. Both tunnel alternatives provide ample opportunities for new open space, however the ramps for the Bypass option along Alaskan Way and under the Olympic sculpture park will harm the experiential qualities of these places.

1. Open Space priority: Every lane, median, and limited access road eliminates more open space for the public, reducing the attractiveness of the public's investment and should be minimized along the waterfront.
   - Prioritize usable open space vs. non-usable open space. For example a 10' median is unusable, but if you provide 10' more open space here and 10' more there, you can provide enough to make plazas, or greens.
2. Open Space vs. Transportation: Currently most options show approximately 70-80% of the total width along the waterfront as transportation oriented. This is unacceptable. Creative alternatives need to be found for freight / taxis who have a dedicated lane, parking, road capacity, location of the trolley, width of medians, etc. Maximization for open space footprint should be the most important goal of the surface treatment.

Pioneer Sq. :
Tunnel Variant #1 is preferable for providing opportunity for significant waterfront open space.

Central Waterfront:
Bypass Tunnel Option #2 is preferable (but with the Tunnel) because it allows open space along the waterfront, and preserves open space by putting the trolley in traffic (this makes good use of the median as well). Tunnel Option #4 is also a good option, allowing open space at the city edge, and moving the trolley to western preserving open space.

North Waterfront:
Alternatives that minimize lanes, move the trolley to western, have no tunnel entrances, and do not disturb the Olympic sculpture park are preferred.

A 24/7 Waterfront:

Issues to Study:

1. Can the tunnel be structured to allow small scale (2-3 story) development on top of it?

Comments:

Opportunities for Development:
The surface and aerial options offer little or no possibility for new development on the waterfront. These options also deter property owners from developing their properties adjacent to the viaduct. This lack of investment / reinvestment will continue to make the waterfront an undesirable place for Seattle and regional citizens.

The Tunnel options could allow for limited development, and will encourage adjacent property owners to redevelop buildings to "face" the waterfront. New pedestrian oriented businesses will be encouraged where none now exist.

Pioneer Sq. :
Tunnel Variant #1 is preferable for providing opportunity for limited development.

Central Waterfront:
Tunnel Option #4 is a good option, allowing limited development along the city edge. All tunnel options should provide a lid adjacent to Victor Steinbruck Park and be coordinated seamlessly with the Pike Place Market PDA's plans for the "Joe Desimone (PC-1 North) site directly south of the park.

Neighborhood Connections:

Issues to Study:

1. Can more E-W streets be reconnected in South Lake union across Aurora?
2. Some options show new stairs at Pine and Union, are these included in the cost? These elements are nice but need to be designed by an urban designer / architect so they work well with the new urban design scheme (to be designed).
3. If the Bombadier tram system (see "No Net Increase in Road Width" above) is used. or another rail trolley / tram technology or system is used can the trolley be extended to South Lake Union via Lower Queen Anne, or Broad street rather than turning east on Blanchard as shown?

Comments:

The Aerial alternatives create a similar or larger visual and physical barrier to the waterfront from downtown, which is a lost opportunity to reconnect the city to the water. The surface

alternative removes the visual barrier but increases the physical barrier to the waterfront due to increased traffic and roadway width.

The best options to reconnect the waterfront to the city are the tunnel options, and more specifically the Tunnel option over the Bypass option. The removal of the on / off ramps allow more streets to comfortably connect to the waterfront. The removal of the viaduct makes it possible for each adjacent neighborhood to make its presence felt along the waterfront, adding it's unique character.

A Grand Market Connection:

Issues to Study:

1. Study how a lid from Pike street to the north edge Victor Steinbruek Park would need to be accommodated Structurally, Mechanically, with Fire / Life / Safety, and Plumbing / Sewer, Vents, etc. The lid should accommodate the ability to create stepped, heavily landscaped terraces from Victor Steinbruek Park to the Central Waterfront. Could these terraces support 2-3 story structures? If not why not, and what would it take to do so? Engineering of this portion of the project **should not preclude** this lid in the future if it is not affordable today. +Provide the infrastructure that would make a retrofit possible, and more affordable in the future if it is accommodated today.
2. Can Pine street offer a pedestrian connection to the waterfront like Harbor Steps?

Comments:

The one connection that needs to be accommodated is a direct connection between the waterfront and Victor Steinbruek Park, at the Pike Place Market. The tunnel variants provide the best opportunity for this. Because of the noise of the viaduct a lid must be provided as mitigation from where the tunnel breaks the ground plane to the northern edge of Victor Steinbruek Park. This lid must be coordinated with the final urban design consultant for the project and structured to accommodate significant landscaping, and small built structures (1-3 stories) that might be a part of the urban design of the waterfront. It must also be coordinated with the market's plans for the property south of Victor Steinbruek Park. This proposal has strong community support (see the Allied Arts design collaborative and the City of Seattle's charette presentations) and needs to be studied for it's structural impacts to the project. At the very least, the roadway must be positioned to accommodate a future lid, and the basic structure must provide for a lid with landscape and buildings. Columns must be accommodated, and the lid must be engineered to verify clearances, spans, and beam depth. Mechanical and emergency systems should assume a lid is in place or will be in the future from the northern edge of Victor Steinbruek Park to where the tunnel emerges along the waterfront.

The Bypass Tunnel options which show a new roadway from Western /Elliott to the waterfront does not allow for the best pedestrian connection possible and risks being an unsafe corridor because people have little reason to be there as this road is in an urban canyon between the backside of condos and a parking garage.

Touch the Water:

Issues to Study:

1. Investigate how the seawall can be structured to provide access to and from the water, and provide shelves that will encourage sealife to flourish on the waterfront.
2. Are there areas of the waterfront where the seawall can give way to more natural "beach-like" settings.

Comments:

The seawall should not be a barrier between people and the water, it should be designed in such a way that encourages access the water.

Respect for Neighborhoods:

Issues to Study:

1. Please review the following structures as possible models for the Belltown aerial structure. Some are true auto-bridges others are meant for architectural inspiration. The aerial structure slicing through Belltown needs to be more of a "feature" than mearly infrastructure. The small distance it covers should minimize the cost of increasing the aesthetics.
   - Renzo Piano's Ushibuka Bridge- Prefab steel sections for a highway http://194.185.232.3/works/033/, http://www.arup.com/bridges/project.cfm?pageid=2140
   - Santiago Calatrava's use of artistic concrete (mostly cable stayed pedestrian bridges, but the artistry should be strived for).Under "Projects, Bridges" http://www.calatrava.com/dfsadf
   - Other bridges:
     a. http://www.structurae.de/en/photos/index.cfm?JS=492
     b. http://www.arup.com/bridges/project.cfm?pageid=2308
     c. http://www.arup.com/bridges/project.cfm?pageid=2138

2. The Viaduct Project should be integrated into and shielded from neighborhoods with art.
   - http://www.dcm-group.com/PROJECTS/7-Mel/95708/95708_30_S.jpg
   - http://www.dcm-group.com/PROJECTS/7-Mel/95708/95708_16_S.jpg
   - http://www.dcm-group.com/PROJECTS/7-Mel/95708/95708_26_S.jpg
   - http://www.dcm-group.com/PROJECTS/7-Mel/95708/95708_14_S.jpg
   -
3. Lid the partial block over which the viaduct enters the Battery street tunnel. This lid can help encase the fan units and other mechanical equipment necessary for the tunnel upgrade. This could become a neighborhood park. Again, the final design should allow for this in the future if it is not included in the current project.
4. Historic Piers should be kept at all costs, demolition or damage should be avoided at all costs. The use of parking lots for construction staging is encouraged over demolition of existing buildings. These properties should then be used for open space or sold for development.
5. Tunnel portals should be treated artistically with light and structure, and possibly as a place for development. Public Private Partnerships should be sought for these important locations. The following is one example of an office building being built over a major tunnel in the Netherlands… http://www.galinsky.com/buildings/nemo/.
6. Ventilation systems should be well designed if they are stand-alone structures. See the following as an example…
   http://www.terryfarrell.co.uk/projects/moving/mov_kowloonVent.html.
   If the ventilation and egress systems are worked into existing or new development, it must be well designed and integrated well into the development.

Comments:

The Olympic Sculpture Park:

Olympic Sculpture Park will be a major tourist attraction and public amenity that should not be impacted, or compromised by this project. The Alaskan -Western tunnel at Broad will inject traffic noise and visual disruption into one of Seattle's best opportunities for respite.

The Tunnel and Bypass Alternatives showing this option should be amended to delete this negative impact.

Portals and Mitigation:

1. Number of Portals: The number of project portals should be minimized for the tunnel options. Two is ideal, one south of King, the other emerging from Denny. The public

should be given a choice in one tunnel variant (Potential #5?) for this option. cost analysis should be kept separate as not to skew the tunnel options up.

For the tunnel options provided, the number of portals for the Bypass option (and Bypass Variant 4) is detrimental to the character of the northern waterfront, and destructive to the character of the Olympic Sculpture Park and are therefore unacceptable.

2. Impacts on Pike Place Market: All Tunnel and Bypass variants should mitigate the impacts to the market and Victor Steinbruck park by providing a lid over the viaduct to at least the northernmost edge of the park.

3. Battery Street Lid: The Battery Street Tunnel should be extended with a lid over the partial block that the viaduct emerges from. This is a chance for the project to provide a sound buffer and public amenity in the heart of Belltown. If this is too expensive, the project should not preclude this option in the future by providing adequate foundation for such a lid.

4. Tunnel portals should be treated artistically with light and structure.